

Catalogue of American Amphibians and Reptiles.

Jennings, Mark R. 1990. *Petrosaurus mearnsi*.

***Petrosaurus mearnsi* (Stejneger)
Banded Rock Lizard**

Uta thalassina: Lockington, 1880:295 (part).

Uta mearnsi Stejneger, 1894:589. Type-locality, "Summit of Coast Range, United States and Mexican boundary line, [San Diego County,] California." Holotype, Natl. Mus. Nat. Hist. (USNM) 21882, an adult female collected on 16 May 1894 by Dr. Edgar Alexander Mearns (Cochran, 1961) (not examined by author).

Uta mearnsii: Cope, 1900:304. Invalid emendation.

Streptosaurus mearnsi: Mittleman, 1942:111. By implication. First use of combination.

Petrosaurus (Streptosaurus) mearnsi: Lowe, 1955:101. By implication. First use of combination.

Uta (Petrosaurus) mearnsi: Savage, 1958:48.

Streptosaurus (Uta) mearnsi: Carpenter, 1962:146.

Petrosaurus mearnsi: Etheridge, 1964:612.

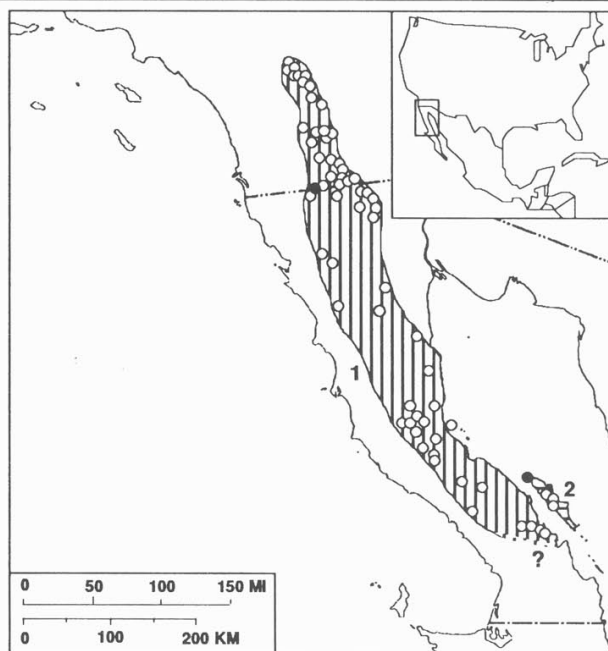
Petrasaurus mearnsi: Bernard and Brown, 1977:120. Misspelling.

Dipsosaurus mearnsi: Buth et al., 1981:55. *Lapsus*.

• **Content.** Two subspecies are currently recognized: *mearnsi* and *slevini*.

• **Definition.** *Petrosaurus mearnsi* is a large oviparous sceloporine lizard (adults 65-105 mm SVL) with a flattened head and body, smooth concave dorsal scales in 160-250 rows, a single complete gular fold, a single narrow black collar, and a banded tail twice as long as the body. This species normally has two supraocular rows, 19-25 femoral pores, and well developed dermal folds. The dorsal coloration is olive, brown, or gray above with many small white or bluish spots, and four wavy crossbars on the back. The ventral surfaces are bluish or dusky. The upper surfaces of the tail and limbs have strongly keeled, spinose scales.

• **Descriptions.** Detailed descriptions are included in Stejneger (1894), Van Denburgh (1895, 1897, 1922), Mocquard (1899),



Map. Solid circles mark type-localities, open circles other localities. Question mark indicates uncertain range boundary.

Cope (1900), Smith (1946), Shaw (1950), and Stebbins (1954, 1966, 1972, 1985). Gorman et al. (1969) described the karyotype ($2n = 34$).

• **Illustrations.** Black and white photographs are included in Van Denburgh (1922), Wright and Wright (1931), Atsatt (1939), Smith (1946), Pickwell (1947), Shaw (1950), and Cochran and Goin (1970). Drawings are included in Van Denburgh (1895), Mocquard (1899), Cope (1900), and Stebbins (1954, 1966, 1972, 1985). Behler and King (1979) presented a color photograph. The karyotype was illustrated by Gorman et al. (1969). Presch (1969) provided a



Figure. Adult male *Petrosaurus mearnsi* from Baja California. Photograph by Suzanne L. and Joseph T. Collins, courtesy of the Cincinnati Zoological Gardens.

drawing of the skull. Olson et al. (1986) included a drawing of the teeth.

• **Distribution.** *Petrosaurus mearnsi* inhabits rocky areas from San Geronio Pass, Riverside County, California, south throughout most of the peninsular ranges in Baja California del Norte at elevations from near sea level to about 1100 m (Stebbins, 1985). Isolated populations are present on Mejía, Angel de la Guarda, and El Muerto islands in the Gulf of California (Soulé and Sloan, 1966).

• **Fossil Record.** None.

• **Pertinent Literature.** Van Denburgh (1922) and Smith and Smith (1973, 1976) summarized the literature. Specific topics include: osteology (Etheridge, 1964; Presch, 1969), carpus (Renous-Lécuru, 1973), scleral ossicles (Presch, 1970; de Queiroz, 1982), dentition (Olson et al., 1986), ear structure (Wever, 1978), tail break frequency (Case, 1983), chromosomes and biochemical analyses (Gorman et al., 1969; Wyles and Gorman, 1978; Murphy, 1982, 1983; Murphy and Crabtree, 1985; Buth et al., 1985; Aguilar-S. et al., 1988), taste buds (Schwenk, 1985), respiratory anatomy and physiology (Vance, 1959; Murrish and Vance, 1968; Wilson, 1974), body temperatures (Brattstrom, 1965), color changes (Atsatt, 1939; Norris and Lowe, 1964), solar radiation effects (Porter, 1967), display behavior (Carpenter, 1962, 1967; Purdue and Carpenter, 1972), home range behavior (MacKay, 1972, 1975), and predators (Klauber, 1949; Armstrong and Murphy, 1979). Notes on habitat and general ecology are in references cited under Descriptions and also in Grinnell and Camp (1917), Klauber (1934, 1939), Hain (1965), MacKay (1972, 1975), Welsh (1976), Behler and King (1979), Ottey and Murphy (1981), and Murphy (1982, 1983).

• **Nomenclatural History.** *Petrosaurus mearnsi* was placed in the genus *Uta* until Mittleman (1942) placed it in the new genus *Streptosaurus*. Most workers followed his generic designation except for Oliver (1943), Schmidt (1953), Stebbins (1954), Savage (1958), Hain (1965), Murrish and Vance (1968), and Wilson (1974), who continued to follow the earlier treatment. Savage (1958) concluded that there was no legitimate basis for recognizing *Streptosaurus* and the species has been placed in the genus *Petrosaurus* on ecological (Lowe, 1955), osteological (Etheridge, 1964), and phylogenetic (Ballinger and Tinkle, 1972) grounds.

• **Etymology.** The specific name *mearnsi* honors Lt. Col. Edgar Alexander Mearns, Physician and Naturalist of the International Boundary Commission, who collected the holotype. The subspecific name *slevini* honors Joseph Richard Slevin, of the California Academy of Sciences, who collected the holotype.

1. *Petrosaurus mearnsi mearnsi* (Stejneger) Long-nosed Rock Lizard

Uta thalassina: Lockington, 1880:295 (part). See species synonymy.
Uta mearnsi: Stejneger, 1894:589. See species synonymy.

Streptosaurus mearnsi: Mittleman, 1942:111. See species synonymy.
Petrosaurus mearnsi: Etheridge, 1964:612. See species synonymy.
Petrosaurus mearnsi mearnsi: Soulé and Sloan, 1966:141. First use of trinomial.

Petrosaurus mearnsi: Bernard and Brown, 1977:120. See species synonymy.

• **Definition.** A smaller subspecies (adults 65-90 mm SVL) with reticulations on the throat so arranged as to make the throat appear spotted.

2. *Petrosaurus mearnsi slevini* (Van Denburgh) Slevin's Rock Lizard

Uta slevini: Van Denburgh, 1922:194. Type-locality, "Mejía Island, Gulf of California, [Baja California del Norte,] Mexico." Holotype, California Acad. Sci. 50506, an adult female collected on 28 June 1921 by Joseph Richard Slevin (examined by author).
Streptosaurus slevini: Mittleman, 1942:112. First use of combination.
Uta (Petrosaurus) slevini: Savage, 1958:53.

Petrosaurus slevini: Etheridge, 1964:612. First use of combination.
Petrosaurus mearnsi slevini: Soulé and Sloan, 1966:141. First use of trinomial.

• **Definition.** A larger subspecies (adults 85-105 mm SVL) with reticulations on the throat so arranged as to make the throat appear mottled with a tendency to form crossbars. Restricted to Mejía and Angel de la Guarda islands in the Gulf of California.

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